

**Cox Operating LLC
Quarantine Bay Compressor Station
Empire, Plaquemines Parish, Louisiana
Agency Interest Number: 32607**

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

**Cox Operating LLC
Quarantine Bay Compressor Station
Empire, Plaquemines Parish, Louisiana
Agency Interest Number: 32607
Activity Number: PER20060003
Proposed Permit Number: 2240-00124-V3**

I. APPLICANT

Company:
Quarantine Bay Compressor Station
4514 Cole Avenue, Suite 1175
Dallas, TX 75205

Facility:
Cox Operating LLC
7 Mi E of
Empire, Plaquemines Parish, Louisiana
Approximate UTM coordinates are 257.2 kilometers East and 3256.8 kilometers North, Zone 16

II. FACILITY AND CURRENT PERMIT STATUS

Quarantine Bay Compressor Station and gas plant is used to treat and handle fluids from the Quarantine Bay Tank Battery No. 4 and gas from the Quarantine Bay Tank Battery No. 2 (each permitted separately). Fluids from the Quarantine Bay Tank Battery No. 4 are routed to a high pressure separator. Oil and water from the high pressure separator are routed to a free water knockout at Quarantine Bay Tank Battery No. 2 for further separation. Off-gas from the high pressure separator is commingled with gas from Quarantine Bay Tank Battery No. 2, compressed and then discharged to the glycol contact tower for drying. The dry gas from the glycol contact tower is used as facility fuel and for gas-lift purposes with relief routed to a "JT" unit. This "JT" unit is designed to extract liquids from the incoming stream by cooling the gas stream. The cooling occurs when fluid pressure is dropped across a throttling valve. These condensed liquids are routed to the FWKO at Quarantine Bay Tank Battery No. 2. Gas from the "JT" separator is metered and routed off-site for sales. Vapors from the glycol still column are piped through a condenser where liquids are collected by a blowcase vessel.

Cox Operating LLC
Quarantine Bay Compressor Station
Empire, Plaquemines Parish, Louisiana
Agency Interest Number: 32607

Effluent vapors are routed to the firebox of the glycol burner for combustion. The glycol dehydration unit is equipped with a glycol pump flash separator (GPFS). Off-gas from the GPFS is routed to the firebox of the glycol burner for fuel with relief gas captured by the facility's compressor system. Various gas operated pumps and insignificant storage tanks are also located at the facility.

There are no facilities under common ownership and contiguous with Cox Operating LLC's Quarantine Bay Compressor Station.

Quarantine Bay Compressor Station is a designated Part 70 source. A Part 70 operating permit has been issued to the complex which includes:

Permit No.	Unit or Source	Date Issued
2240-00124-V2	Quarantine Bay Compressor Station	6-27-2005

III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application was submitted on August 22, 2006 requesting a Part 70 operating permit modification for the Quarantine Bay Compressor Station. Additional information dated October 26, 2006, November 8, 2006, and December 27, 2006 were also submitted.

Project

Cox Operating LLC proposes to modify the Quarantine Bay Compressor Station as follows:

- Delete from the emission point source list: two generator engines (07 & 08), a glycol dehydration unit (09 & 023), a flare (12), two pneumatic pumps (13 & 14), three chemical injection pumps (CI-01, CI-02, & CI-03), two transfer pumps (DP-01 & DP-04), a lube oil pump (DP-02), a sump pump (DP-03), four level controllers (LC-01, LC-02, LC-03 & LC-04), and two pressure controllers (PC-01 & PC-02).
- Add to the emission point source list: a new glycol dehydration unit (26-06-GR-BS & 27-06-GR-SCC), a blowcase vessel (29-06-BV), a vent scrubber (30-06-VS), two natural gas fired generators (31-06-ICE-ES & 32-06-ICE-ES), a diesel fired generator (33-06-ICE-ES), thirteen gas operated pumps (34-06-GOP through 46-06-GOP), and pneumatic controllers (47-06-PC).
- Add ten insignificant storage tanks (28-06-GST, 48-06-Sump (2 tanks), 49-06-ST (5 tanks), 50-06-ST, and 51-06-LOT) to the facility's insignificant activities list.
- Incorporate an emissions cap for sources 31-06-ICE-ES and 32-06-ICE-ES with the total operating time between these two engines not to exceed 10,000 hrs/yr.
- Incorporate revisions of emissions for the facility's remaining emission point sources based on updated throughput rates, emission factors, and/or current facility conditions.

**Cox Operating LLC
Quarantine Bay Compressor Station
Empire, Plaquemines Parish, Louisiana
Agency Interest Number: 32607**

Proposed Permit

Permit 2240-00124-V3 will be the Part 70 operating permit modification of Part 70 operating permit 2240-00124-V2 for the Quarantine Bay Compressor Station.

Permitted Air Emissions

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	5.54	2.36	-3.18
SO ₂	0.21	0.40	+0.19
NO _x **	712.74	754.28	+41.54
CO	114.84	212.51	+97.67
VOC *	60.95	62.30	+1.35

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Applicability and Exemptions of Selected Subject Items

See Permit Application

Prevention of Significant Deterioration/Nonattainment Review

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations and New Source Performance Standards (NSPS). Prevention of Significant Deterioration (PSD) and National Emission Standards for Hazardous Air Pollutants (NESHAP) do not apply.

Streamlined Equipment Leak Monitoring Program

None

MACT Requirements

None

**Cox Operating LLC
Quarantine Bay Compressor Station
Empire, Plaquemines Parish, Louisiana
Agency Interest Number: 32607**

Air Quality Analysis

Louisiana Toxic Air Pollutant (LTAP) dispersion modeling is performed for the applicable LTAP compounds with emissions above the Minimum Emission Rate. The screening modeling results predict the maximum ground level concentrations of toxic air pollutants are below the Ambient Air Standards (AAS).

Impact on air quality from the emissions of the proposed units will be below the National Ambient Air Quality Standards (NAAQS) and the Louisiana Ambient Air Standards (AAS) beyond industrial property.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

N/A

VI. PERIODIC MONITORING

All periodic monitoring is conducted in accordance with state and federal regulations. See the Specific Requirements Section of the proposed permit renewal / modification for monitoring requirements.

Cox Operating LLC
Quarantine Bay Compressor Station
Empire, Plaquemines Parish, Louisiana
Agency Interest Number: 32607

VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥10 tons per year of any toxic air pollutant; ≥25 tons of total toxic air pollutants; and ≥100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient

**Cox Operating LLC
Quarantine Bay Compressor Station
Empire, Plaquemines Parish, Louisiana
Agency Interest Number: 32607**

Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.